# SUBJECT INDEX

### Accretion

Accretion Behind Single Offshore Breakwater, John R. C. Hsu and Richard Silvester, WW May/June 90 p362-380.

#### Air entrainment

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

#### Allocations

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

### Amplitude

Generation of Long Waves in Laboratory, Costas Emmanuel Synolakis, WW Mar./Apr. 90 p252-266.

### Analysis

Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.

Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 p1-20.

Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

### Armor units

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

Deterministic and Probabilistic Design of Breakwater Armor Layers, Jentsje W. van der Meer, WW Jan./Feb. 88 p66-80.

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

# Artificial islands

Practical Application of Theory for Tidal-Intrusion Fronts, A. Y. Kuo, R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90 p341-361.

### Reds

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443

Soft Mud Response to Water Waves, Jerome P.-Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

### Borth

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

# **Boundary element method**

Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

# Boundary layer

North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-

# Boundary layer flow

Generation of Long Waves in Laboratory, Costas Emmanuel Synolakis, WW Mar./Apr. 90 p252-266.

### Breaking

Breaking Condition of Shoaling Waves on Opposing Current, Shigeki Sakai and Nobuhisa Kobayashi, WW Mar./Apr. 90 p302-306.

### Breaking waves

Breaking Wave Forces on Vertical Walls, Yen-hsi Chu, WW Jan./Feb. 89 p58-65.

Influence of Wind on Breaking Waves, Scott L. Douglass, WW Nov./Dec. 90 p651-663.

#### Breakwaters

Accretion Behind Single Offshore Breakwater, John R. C. Hsu and Richard Silvester, WW May/June 90 p362-380.

Breaking Wave Forces on Vertical Walls, Yen-hsi Chu, WW Jan./Feb. 89 p58-65.

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

Wave Diffraction Through Offshore Breakwaters, Robert A. Dalrymple and Paul A. Martin, WW Nov./Dec. 90 p727-741.

### Calesons

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 pl-20.

### Cargo

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

# Cargo transportation

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

# Channel flow

Improvement of Bypassing and Backpassing At Tidal Inlets, Per Bruun, WW July/Aug. 90 p494-500.

# Channels, waterways

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

# Cnoidal waves

- Determining Nome and Complementary Nome in First-Order Cnoidal Theory, Peter L. Crawford, WW Nov./Dec. 90 p766-770.
- Viscous Damping of Cnoidal Waves Over Fluid-Mud Seabed, Lin Jiang, Wataru Kioka and Akira Ishida, WW July/Aug. 90 p470-491.

# Coastal engineering

- Influence of Wind on Breaking Waves, Scott L. Douglass, WW Nov./Dec. 90 p651-663.
- Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.
- Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 p232-251.
- Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.
- Scour Below Pipelines in Waves, B. Mutlu Sumer and Jørgen Fredsøe, WW May/June 90 p307-323
- Wave Diffraction Through Offshore Breakwaters, Robert A. Dalrymple and Paul A. Martin, WW Nov./Dec. 90 p727-741.

### Coastal environment

- D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.
- Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug. 90 p408-424.
- Soft Mud Response to Water Waves, Jerome P. -Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

### Coastal structures

- Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.
- Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

### Cohesive sediment

Soft Mud Response to Water Waves, Jerome P. -Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

### Computation

Determining Nome and Complementary Nome in First-Order Cnoidal Theory, Peter L. Crawford, WW Nov./Dec. 90 p766-770.

# Computer applications

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

# Computer programs

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

#### Concrete

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

#### Cost contro

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

#### Currents

- Breaking Condition of Shoaling Waves on Opposing Current, Shigeki Sakai and Nobuhisa Kobayashi, WW Mar./Apr. 90 p302-306.
- Effects of Opposing Waves on Momentum Jets, Sung B. Yoon and Philip L. -F. Liu, WW Sept./Oct. 90 p545-557.

### Cylinders

- Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.
- Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.
- Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 p232-251.
- Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.
- Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

### Demais

Viscous Damping of Cnoidal Waves Over Fluid-Mud Seabed, Lin Jiang, Wataru Kioka and Akira Ishida, WW July/Aug. 90 p470-491.

### Deep wate

High-Wave-Number/Frequency Attenuation of Wind-Wave Spectra, M. Aziz Tayfun, WW May/June 90 p381-398.

# Design

- Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.
- Breaking Wave Forces on Vertical Walls, Yen-hsi Chu, WW Jan./Feb. 89 p58-65.
- Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

# Diaphragm wall

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

#### Diffraction

Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.

### Discharge

Salinity Changes in Charleston Harbor 1922-1987, Björn Kjerfve and K. E. Magill, WW Mar./Apr. 90 p153-168.

### Distribution

Distribution of Large Wave Heights, M. Aziz Tayfun, WW Nov./Dec. 90 p686-707.

#### Diversion

Salinity Changes in Charleston Harbor 1922-1987, Björn Kjerfve and K. E. Magill, WW Mar./Apr. 90 p153-168.

#### Dolo

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

#### Drac

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y.-H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

# Drag coefficient

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

# Dredging

Improvement of Bypassing and Backpassing At Tidal Inlets, Per Bruun, WW July/Aug. 90 p494-500.

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

# Earth pressure

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

# Economic analysis

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

### Economics

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

# Elasticity

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 p1-20.

# **Empirical equations**

Breaking Condition of Shoaling Waves on Opposing Current, Shigeki Sakai and Nobuhisa Kobayashi, WW Mar./Apr. 90 p302-306.

#### Envelope curves

Nonlinear Effects on Wave Envelope and Phase, M. Aziz Tayfun and Jen-Men Lo, WW Jan./Feb. 90 p79-100.

#### Erosion

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

Soft Mud Response to Water Waves, Jerome P.-Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

### Estuarie

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

Practical Application of Theory for Tidal-Intrusion Fronts, A. Y. Kuo, R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90 p341-361.

Salinity Changes in Charleston Harbor 1922-1987, Björn Kjerfve and K. E. Magill, WW Mar./Apr. 90 p153-168.

Velocity Distribution in Arrested Saline Wedges, Vassilios Dermissis, WW Jan./Feb. 90 p21-42.

### Experimentation

Breaking Condition of Shoaling Waves on Opposing Current, Shigeki Sakai and Nobuhisa Kobayashi, WW Mar./Apr. 90 p302-306.

Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.

Velocity Distribution in Arrested Saline Wedges, Vassilios Dermissis, WW Jan./Feb. 90 p21-42.

### Field tests

North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-632

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raiu, WW Jan./Feb. 90 p43-56.

### Finite element method

Motion Response and Wave Attenuation of Linked Floating Breakwaters, Iraklis A. Valioulis, WW Sept./Oct. 90 p558-574.

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

# Floating breakwaters

Motion Response and Wave Attenuation of Linked Floating Breakwaters, Iraklis A. Valioulis, WW Sept./Oct. 90 p558-574.

#### Floods

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

#### Flow

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

### Fluidizing

Improvement of Bypassing and Backpassing At Tidal Inlets, Per Bruun, WW July/Aug. 90 p494-500.

#### Force

Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

#### Foundations

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 p1-20.

#### Fourier series

Kinematics Prediction by Stokes and Fourier Wave Theories, Min-Chih Huang, WW Jan./Feb. 90 p137-148.

# Friction

Effects of Opposing Waves on Momentum Jets, Sung B. Yoon and Philip L. -F. Liu, WW Sept./Oct. 90 p545-557.

# **Gravity waves**

FRF Spectrum: TMA with Kitaigorodskii's f<sup>4</sup> Scaling, Herman C. Miller and C. Linwood Vincent, WW Jan./Feb. 90 p57-78.

### Great Lakes

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

### Harbon

Salinity Changes in Charleston Harbor 1922-1987, Björn Kjerfve and K. E. Magill, WW Mar./Apr. 90 p153-168.

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

# Hydraulic conductivity

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

# Hydranlic models

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

### Hydrodynamics

Determining Nome and Complementary Nome in First-Order Cnoidal Theory, Peter L. Crawford, WW Nov./Dec. 90 p766-770.

Diffraction of Long Waves by Rectangular Pit, A. N. Williams, WW July/Aug. 90 p459-469. Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.

Influence of Wind on Breaking Waves, Scott L. Douglass, WW Nov./Dec. 90 p651-663.

Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.

Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

#### Impac

Practical Application of Theory for Tidal-Intrusion Fronts, A. Y. Kuo, R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90 p341-361.

Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.

#### India

Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug. 90 p408-424.

#### Inertia

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

# Inlets, waterways

Improvement of Bypassing and Backpassing At Tidal Inlets, Per Bruun, WW July/Aug. 90 p494-500.

# Interactions

Motion Response and Wave Attenuation of Linked Floating Breakwaters, Iraklis A. Valioulis, WW Sept./Oct. 90 p558-574.

# Jet diffusion

Effects of Opposing Waves on Momentum Jets, Sung B. Yoon and Philip L. -F. Liu, WW Sept./Oct. 90 p545-557.

### Kinematic

Kinematics Prediction by Stokes and Fourier Wave Theories, Min-Chih Huang, WW Jan./Feb. 90 p137-148.

### Laboratorio

Generation of Long Waves in Laboratory, Costas Emmanuel Synolakis, WW Mar./Apr. 90 p252-266.

# Laboratory tests

Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

Influence of Wind on Breaking Waves, Scott L. Douglass, WW Nov./Dec. 90 p651-663.

#### Life

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

#### Linearity

High-Wave-Number/Frequency Attenuation of Wind-Wave Spectra, M. Aziz Tayfun, WW May/June 90 p381-398.

### Littoral drift

Improvement of Bypassing and Backpassing At Tidal Inlets, Per Bruun, WW July/Aug. 90 p494-500.

### Load

Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.

# Long waves

Diffraction of Long Waves by Rectangular Pit, A. N. Williams, WW July/Aug. 90 p459-469.

Generation of Long Waves in Laboratory, Costas Emmanuel Synolakis, WW Mar./Apr. 90 p252-

#### Maintenance

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

### Mathematical models

Motion Response and Wave Attenuation of Linked Floating Breakwaters, Iraklis A. Valioulis, WW Sept./Oct. 90 p558-574.

### Measuremen

North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-633.

### Model tests

Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.

### Modeling

Soft Mud Response to Water Waves, Jerome P. -Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

### Models

Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug. 90 p408-424.

### Monte Carlo method

Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.

#### Motion

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

Motion Response and Wave Attenuation of Linked Floating Breakwaters, Iraklis A. Valioulis, WW Sept./Oct. 90 p558-574.

#### Mud

Soft Mud Response to Water Waves, Jerome P.-Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

Viscous Damping of Cnoidal Waves Over Fluid-Mud Seabed, Lin Jiang, Wataru Kioka and Akira Ishida, WW July/Aug. 90 p470-491.

### Navigation

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

#### Normal etrees

Effects of Opposing Waves on Momentum Jets, Sung B. Yoon and Philip L. -F. Liu, WW Sept./Oct. 90 p545-557.

#### North Sea

North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-633.

### Numerical analysis

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

Diffraction of Long Waves by Rectangular Pit, A. N. Williams, WW July/Aug. 90 p459-469.

### Numerical models

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

Model for Refraction of Water Waves, Robert A. Dalrymple, WW July/Aug. 88 p423-435.

Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.

Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

# Ocean engineering

Diffraction of Long Waves by Rectangular Pit, A. N. Williams, WW July/Aug. 90 p459-469.

Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.

Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

#### Ocean waves

- Distribution of Large Wave Heights, M. Aziz Tayfun, WW Nov./Dec. 90 p686-707.
- Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 p232-251.
- Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.
- Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.
- Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

### Offshore engineering

- Accretion Behind Single Offshore Breakwater, John R. C. Hsu and Richard Silvester, WW May/June 90 p362-380.
- Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.
- Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

# Offshore pipeline

Scour Below Pipelines in Waves, B. Mutlu Sumer and Jørgen Fredsøe, WW May/June 90 p307-323.

### Offshore structures

- Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 n232-251
- Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.
- Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

# Optimal development plans

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

# Optimization

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

## Oscillatory flow

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

### Peak values

FRF Spectrum: TMA with Kitaigorodskii's f\* Scaling, Herman C. Miller and C. Linwood Vincent, WW Jan./Feb. 90 p57-78.

# Phase angles

Nonlinear Effects on Wave Envelope and Phase, M. Aziz Tayfun and Jen-Men Lo, WW Jan./Feb. 90 p79-100.

# Pipeline design

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y.-H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

#### Pore pressur

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

# Pore water pressure

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 p1-20.

### Porous materials

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 p1-20.

#### Porous media flow

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

#### Port

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

# Probabilistic methods

Deterministic and Probabilistic Design of Breakwater Armor Layers, Jentsje W. van der Meer, WW Jan./Feb. 88 p66-80.

## Probability distribution

- Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 p232-251.
- Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 n742-763.

### Radiatio

Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

### Random wave

- Groupiness Factor and Wave Height Distribution, Hajime Mase, WW Jan./Feb. 89 p105-121.
- Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 p232-251.
- Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.

### Reservoire

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

### Responses

Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.

#### Revetments

Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.

#### Risk analysis

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

#### Rivers

Salinity Changes in Charleston Harbor 1922-1987, Björn Kjerfve and K. E. Magill, WW Mar./Apr. 90 p. 153-168.

#### Rods

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

#### Rubble-mound breakwaters

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

Deterministic and Probabilistic Design of Breakwater Armor Layers, Jentsje W. van der Meer, WW Jan./Feb. 88 p66-80.

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

# Salinity

Salinity Changes in Charleston Harbor 1922-1987, Björn Kjerfve and K. E. Magill, WW Mar./Apr. 90 p153-168.

### Salt water-freshwater interfaces

Velocity Distribution in Arrested Saline Wedges, Vassilios Dermissis, WW Jan./Feb. 90 p21-42.

### Sampling

Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.

### Sand

Accretion Behind Single Offshore Breakwater, John R. C. Hsu and Richard Silvester, WW May/June 90 p362-380.

### Scou

Scour Below Pipelines in Waves, B. Mutlu Sumer and Jørgen Fredsøe, WW May/June 90 p307-323.

### Sea floor

North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-633.

Response of Finite Depth Seabed to Waves and Caisson Motion, Y. T. Tsai, W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90 p1-20. Viscous Damping of Cnoidal Waves Over Fluid-Mud Seabed, Lin Jiang, Wataru Kioka and Akira Ishida, WW July/Aug. 90 p470-491.

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

# Sediment transport

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug, 90 p408-424.

Scour Below Pipelines in Waves, B. Mutlu Sumer and Jørgen Fredsøe, WW May/June 90 p307-323.

### Sedimentation

Scheduling Maintenance Dredging on Single Reach with Uncertainty, Jay R. Lund, WW Mar./Apr. 90 p211-231.

#### Shear stress

Effects of Opposing Waves on Momentum Jets, Sung B. Yoon and Philip L.-F. Liu, WW Sept./Oct. 90 p545-557.

#### Shoaling

Breaking Condition of Shoaling Waves on Opposing Current, Shigeki Sakai and Nobuhisa Kobayashi, WW Mar./Apr. 90 p302-306.

Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug. 90 p408-424.

Model for Refraction of Water Waves, Robert A. Dalrymple, WW July/Aug. 88 p423-435.

Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.

# Shore protection

Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.

Wave Diffraction Through Offshore Breakwaters, Robert A. Dalrymple and Paul A. Martin, WW Nov./Dec. 90 p727-741.

### Simulation

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

#### Sie

Optimum Allocation and Size of Seaports, Michihiko Noritake and Sakuo Kimura, WW Mar./ Apr. 90 p287-299.

# Soil-pipe interaction

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

### Solitary wave

Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

### Spectra

Nonlinear Effects on Wave Envelope and Phase, M. Aziz Tayfun and Jen-Men Lo, WW Jan./Feb. 90 p79-100.

# Spectral analysis

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

#### Sri Lanks

Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug. 90 p408-424.

#### Stability

Deterministic and Probabilistic Design of Breakwater Armor Layers, Jentsje W. van der Meer, WW Jan./Feb. 88 p66-80.

# Statistical analysis

Distribution of Large Wave Heights, M. Aziz Tayfun, WW Nov./Dec. 90 p686-707.

Groupiness Factor and Wave Height Distribution, Hajime Mase, WW Jan./Feb. 89 p105-121.

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

### Statistics

High-Wave-Number/Frequency Attenuation of Wind-Wave Spectra, M. Aziz Tayfun, WW May/June 90 p381-398.

Nonlinear Effects on Wave Envelope and Phase, M. Aziz Tayfun and Jen-Men Lo, WW Jan./Feb. 90 p79-100.

# Stoke's law

Kinematics Prediction by Stokes and Fourier Wave Theories, Min-Chih Huang, WW Jan./Feb. 90 p137-148.

### Storms

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

### Stratified flow

Velocity Distribution in Arrested Saline Wedges, Vassilios Dermissis, WW Jan./Feb. 90 p21-42.

### Strength

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

### Structural failures

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

# Submarine pipelines

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y.-H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

#### Surf zone

Influence of Wind on Breaking Waves, Scott L. Douglass, WW Nov./Dec. 90 p651-663.

#### Surge

Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

#### Test

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

Structural Modeling of Dolos Armor Units, D. Scott, D. Turcke and W. F. Baird, WW Jan./ Feb. 90 p120-136.

#### Theorie

Practical Application of Theory for Tidal-Intrusion Fronts, A. Y. Kuo, R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90 p341-361.

# Tidal currents

North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-633

# Tidal waters

Improvement of Bypassing and Backpassing At Tidal Inlets, Per Bruun, WW July/Aug. 90 p494-500.

### Ties

Tie-Rod Force Measurements in Cargo Berth, R. Sundaravadivelu, V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90 p43-56.

### Time dependence

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

# Time series analysis

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

# Transport phenomena

Practical Application of Theory for Tidal-Intrusion Fronts, A. Y. Kuo, R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90 p341-361.

# Transport rate

Longshore-Transport Model for South Indian and Sri Lankan Coasts, P. Chandramohan, B. U. Nayak and V. S. Raju, WW July/Aug. 90 p408-424.

#### Tsunamis

Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

### Two phase flow

Aeration in Rubble-Mound Breakwater Models, Kevin R. Hall, WW May/June 90 p400-405.

#### Two-dimensional

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

#### Two-dimensional models

Practical Application of Theory for Tidal-Intrusion Fronts, A. Y. Kuo, R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90 p341-361.

# **Unsteady flow**

2-D Bed Evolution in Natural Watercourses—New Simulation Approach, Miodrag Spasojevic and Forrest M. Holly, Jr., WW July/Aug. 90 p425-443.

# Velocity distribution

Velocity Distribution in Arrested Saline Wedges, Vassilios Dermissis, WW Jan./Feb. 90 p21-42.

### Vortex shedding

Experimental Study of Production Risers in Steady Uniform Flow, Zeki Demirbilek, WW Sept./Oct. 90 p575-591.

### Walk

Forces on Vertical Wall Caused by Incident Bores, Jerald D. Ramsden and Fredric Raichlen, WW Sept./Oct. 90 p592-613.

## Water levels

Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, Todd L. Walton, Jr. and Leon E. Borgman, WW Nov./Dec. 90 p664-685.

### Water waves

Model for Refraction of Water Waves, Robert A. Dalrymple, WW July/Aug. 88 p423-435.

Soft Mud Response to Water Waves, Jerome P. -Y. Maa and Ashish J. Mehta, WW Sept./Oct. 90 p634-650.

Wave Diffraction Through Offshore Breakwaters, Robert A. Dalrymple and Paul A. Martin, WW Nov./Dec. 90 p727-741. Wave Radiation by Truncated Elliptical Cylinder, A. N. Williams and M. K. Darwiche, WW Jan./Feb. 90 p101-119.

#### Wave action

Kinematics Prediction by Stokes and Fourier Wave Theories, Min-Chih Huang, WW Jan./Feb. 90 p.137-148

Wave Diffraction Through Offshore Breakwaters, Robert A. Dalrymple and Paul A. Martin, WW Nov./Dec. 90 p727-741.

Wave-Induced Breakout of Half-Buried Marine Pipes, Mostafa A. Foda, Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90 p267-286.

#### Wave attenuation

Motion Response and Wave Attenuation of Linked Floating Breakwaters, Iraklis A. Valioulis, WW Sept./Oct. 90 p558-574.

# Wave diffraction

Diffraction of Long Waves by Rectangular Pit, A. N. Williams, WW July/Aug. 90 p459-469.

Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

Wave Diffraction Through Offshore Breakwaters, Robert A. Dalrymple and Paul A. Martin, WW Nov./Dec. 90 p727-741.

# Wave dispersion

Groupiness Factor and Wave Height Distribution, Hajime Mase, WW Jan./Feb. 89 p105-121.

### Wave force

Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.

Breaking Wave Forces on Vertical Walls, Yen-hsi Chu, WW Jan./Feb. 89 p58-65.

Drag and Inertia Forces on Circular Cylinders in Harmonic Flow, C. J. Garrison, WW Mar./Apr. 90 p169-190.

Random Wave Forces Near Free Surface, Michael Isaacson and John Baldwin, WW Mar./Apr. 90 p232-251.

Random Wave Slamming on Cylinders, Michael Isaacson and Kesavan Subbiah, WW Nov./Dec. 90 p742-763.

Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

# Wave generation

FRF Spectrum: TMA with Kitaigorodskii's f<sup>4</sup> Scaling, Herman C. Miller and C. Linwood Vincent, WW Jan./Feb. 90 p57-78.

Generation of Long Waves in Laboratory, Costas Emmanuel Synolakis, WW Mar./Apr. 90 p252-266.

# Wave groups

Groupiness Factor and Wave Height Distribution, Hajime Mase, WW Jan./Feb. 89 p105-121.

# Wave beight

- Distribution of Large Wave Heights, M. Aziz Tayfun, WW Nov./Dec. 90 p686-707.
- FRF Spectrum: TMA with Kitaigorodskii's f<sup>4</sup> Scaling, Herman C. Miller and C. Linwood Vincent, WW Jan./Feb. 90 p57-78.
- Groupiness Factor and Wave Height Distribution, Hajime Mase, WW Jan./Feb. 89 p105-121.
- Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.

#### Wave measurement

Resampling Approach to Extreme Wave-Height Analysis, Michael E. Andrew and J. Michael Hemsley, WW July/Aug. 90 p444-458.

# Wave propagation

Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.

# Wave reflection

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

### Wave refraction

- Model for Refraction of Water Waves, Robert A. Dalrymple, WW July/Aug. 88 p423-435.
- Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.

# Wave runup

Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, Nobuhisa Kobayashi, Daniel T. Cox and Andojo Wurjanto, WW Nov./ Dec. 90 p708-726.

### Wave spectra

- Distribution of Large Wave Heights, M. Aziz. Tayfun, WW Nov./Dec. 90 p686-707.
- FRF Spectrum: TMA with Kitaigorodskii's f<sup>4</sup> Scaling, Herman C. Miller and C. Linwood Vincent, WW Jan./Feb. 90 p57-78.
- High-Wave-Number/Frequency Attenuation of Wind-Wave Spectra, M. Aziz Tayfun, WW May/June 90 p381-398.

Numerical Simulation of Irregular Wave Propagation Over Shoal, Vijay G. Panchang, Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90 p324-340.

### Wave tank

Generation of Long Waves in Laboratory, Costas Emmanuel Synolakis, WW Mar./Apr. 90 p252-266.

### Wave velocity

- Kinematics Prediction by Stokes and Fourier Wave Theories, Min-Chih Huang, WW Jan./Feb. 90 p137-148.
- North Sea Bottom Steady Boundary Layer Measurements, Olav H. Slaattelid, Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90 p614-633.

### Waves

- Analytical Design Method for Relatively Closed Block Revetments, A. M. Burger, M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90 p525-544.
- Breaking Condition of Shoaling Waves on Opposing Current, Shigeki Sakai and Nobuhisa Kobayashi, WW Mar./Apr. 90 p302-306.
- Effects of Opposing Waves on Momentum Jets, Sung B. Yoon and Philip L. -F. Liu, WW Sept./Oct. 90 p545-557.
- Kinematics Prediction by Stokes and Fourier Wave Theories, Min-Chih Huang, WW Jan./Feb. 90 p137-148.
- Nonlinear Effects on Wave Envelope and Phase, M. Aziz Tayfun and Jen-Men Lo, WW Jan./Feb. 90 p79-100.
- Scour Below Pipelines in Waves, B. Mutlu Sumer and Jørgen Fredsøe, WW May/June 90 p307-323.
- Time-Domain Solution for Second-Order Wave Diffraction, Michael Isaacson and Kwok-Fai Cheung, WW Mar./Apr. 90 p191-210.

### Wind

Influence of Wind on Breaking Waves, Scott L. Douglass, WW Nov./Dec. 90 p651-663.

# Wind waves

- FRF Spectrum: TMA with Kitaigorodskii's f<sup>4</sup> Scaling, Herman C. Miller and C. Linwood Vincent, WW Jan./Feb. 90 p57-78.
- High-Wave-Number/Frequency Attenuation of Wind-Wave Spectra, M. Aziz Tayfun, WW May/June 90 p381-398.

# AUTHOR INDEX

Andrew, Michael E.

Resampling Approach to Extreme Wave-Height Analysis, with J. Michael Hemsley, WW July/ Aug. 90, p444-458

Baird, W. F. see Scott, D., WW Jan./Feb. 90, p120-136

Baldwin, John

see Isaacson, Michael, WW Mar./Apr. 90, p232-

Banach, L.

see Burger, A. M., WW Sept./Oct. 90, p525-544

Bezuijen, A.

see Burger, A. M., WW Sept./Oct. 90, p525-544

Borgman, Leon E. see Walton, Todd L., Jr., WW Nov./Dec. 90, p664-685

Breteler, M. Klein see Burger, A. M., WW Sept./Oct. 90, p525-544

Briggs, Michael J. see Panchang, Vijay G., WW May/June 90, p324-340

Brubaker, J. M. see Kuo, A. Y., WW May/June 90, p341-361

disc. (of Deterministic and Probabilistic Design of Breakwater Armor Layers, by Jentsje W. van der Meer, WW Jan./Feb. 88, p66-80), WW July/Aug. 90, p502-504

Improvement of Bypassing and Backpassing At Tidal Inlets, WW July/Aug. 90, p494-500

Burger, A. M. Analytical Design Method for Relatively Closed Block Revetments, with M. Klein Breteler, L. Banach, A. Bezuijen and K. W. Pilarczyk, WW Sept./Oct. 90, p525-544

Byrne, R. J. see Kuo, A. Y., WW May/June 90, p341-361

Longshore-Transport Model for South Indian and Sri Lankan Coasts, with B. U. Nayak and V. S. Raju, WW July/Aug. 90, p408-424

Chang, Jo Y. -H. see Foda, Mostafa A., WW Mar./Apr. 90, p267-286

Cheung, Kwok-Fai see Isaacson, Michael, WW Mar./Apr. 90, p191-210

Chu, Yen-hai Breaking Wave Forces on Vertical Walls, WW Jan./Feb. 89, p58-65 disc: Yoshimi Goda, WW July/Aug. 90,

p516-518 clo: WW July/Aug. 90, p518-519

disc. (of Groupiness Factor and Wave Height Distribution, by Hajime Mase, WW Jan./Feb. 89, p105-121), WW July/Aug. 90, p519-521

see Kobayashi, Nobuhisa, WW Nov./Dec. 90, p708-726

Crawford, Peter L.

Determining Nome and Complementary Nome in First-Order Cnoidal Theory, WW Nov./Dec. 90,

Dairymple, Robert A. Model for Refraction of Water Waves, WW

July/Aug. 88, p423-435
disc: John R. Headland and Nicholas C.
Kraus, WW Jan-/Feb. 90, p150-152
Wave Diffraction Through Offshore Breakwaters,
with Paul A. Martin, WW Nov./Dec. 90, p727-741

Darwiche, M. K. see Williams, A. N., WW Jan./Feb. 90, p101-119

Demirbilek, Zeki

Experimental Study of Production Risers in Steady Uniform Flow, WW Sept./Oct. 90, p575-591

Velocity Distribution in Arrested Saline Wedges, WW Jan./Feb. 90, p21-42

Douglass, Scott L. Influence of Wind on Breaking Waves, WW Nov./Dec. 90, p651-663

Wave-Induced Breakout of Half-Buried Marine Pipes, with Jo Y. -H. Chang and Adrian W. K. Law, WW Mar./Apr. 90, p267-286

Fredsoe, Jorgen see Sumer, B. Mutlu, WW May/June 90, p307-323

Gandhi, S. R. see Sundaravadivelu, R., WW Jan./Feb. 90, p43-56

Garrison, C. J.
Drag and Inertia Forces on Circular Cylinders in
Harmonic Flow, WW Mar./Apr. 90, p169-190

disc. (of Breaking Wave Forces on Vertical Walls, by Yen-hsi Chu, WW Jan./Feb. 89, p58-65), WW July/Aug. 90, p516-518

Hall, Kevin R.

Aeration in Rubble-Mound Breakwater Models, WW May/June 90, p400-405

Headland, John R. disc. (of Model for Refraction of Water Waves, by Robert A. Dalrymple, WW July/Aug. 88, p423-435) with Nicholas C. Kraus, WW Jan./Feb. 90, p150-152

Hedar, Per Anders disc. (of Deterministic and Probabilistic Design of Breakwater Armor Layers, by Jentsje W. van der Meer, WW Jan./Feb. 88, p66-80), WW July/Aug. 90, p504-505

Hemsley, J. Michael see Andrew, Michael E., WW July/Aug. 90, p444-458

Holly, Forrest M., Jr. see Spasojevic, Miodrag, WW July/Aug. 90, p425-443

Hsu, John R. C. Accretion Behind Single Offshore Breakwater, with Richard Silvester, WW May/June 90, p362-380

Huang, Min-Chih Kinematics Prediction by Stokes and Fourier Wave Theories, WW Jan./Feb. 90, p137-148 err: WW July/Aug. 90, p523

Hyer, P. V. see Kuo, A. Y., WW May/June 90, p341-361

Idichandy, V. G. see Sundaravadivelu, R., WW Jan./Feb. 90, p43-56

Isaacson, Michael
Random Wave Forces Near Free Surface, with
John Baldwin, WW Mar./Apr. 90, p232-251
Random Wave Slamming on Cylinders, with
Kesavan Subbiah, WW Nov./Dec. 90, p742-763
Time-Domain Solution for Second-Order Wave
Diffraction, with Kwok-Fai Cheung, WW Mar./ Apr. 90, p191-210

Ishida, Akira

see Jiang, Lin, WW July/Aug. 90, p470-491

Jiang, Lin Viscous Damping of Cnoidal Waves Over Fluid-Mud Seabed, with Wataru Kioka and Akira Ishida, WW July/Aug. 90, p470-491

Noritake, Michihiko, WW Mar./Apr. 90, p287-

Kioka, Wataru see Jiang, Lin, WW July/Aug. 90, p470-491

Kjerfve, Björn Salinity Changes in Charleston Harbor 1922-1987, with K. E. Magill, WW Mar./Apr. 90, p153-168

Kobayashi, Nobahisa Irregular Wave Reflection and Run-Up on Rough Impermeable Slopes, with Daniel T. Cox and Andojo Wurjanto, WW Nov./Dec. 90, p708-726 see Sakai, Shigeki, WW Mar./Apr. 90, p302-306

Practical Application of Theory for Tidal-Intrusion Fronts, with R. J. Byrne, P. V. Hyer, E. P. Ruzecki and J. M. Brubaker, WW May/June 90, p341-361

Lambrakos, Kostas F. see Slaattelid, Olav H., WW Sept./Oct. 90, p614-

Law, Adrian W. K.

see Foda, Mostafa A., WW Mar./Apr. 90, p267-286

Liu, Philip L. -F.

see Yoon, Sung B., WW Sept./Oct. 90, p545-557

Lo, Jen-Men see Tayfun, M. Aziz, WW Jan./Feb. 90, p79-100

LoSada, Miguel A. disc. (of Deterministic and Probabilistic Design of Breakwater Armor Layers, by Jentsje W. van der Meer, WW Jan./Feb. 88, p66-80) with Raul Medina, WW July/Aug. 90, p505-507

Lund, Jay R.
Scheduling Maintenance Dredging on Single Reach with Uncertainty, WW Mar./Apr. 90, p211-231

Maa, Jerome P. -Y.
Soft Mud Response to Water Waves, with Ashish J.
Mehta, WW Sept./Oct. 90, p634-650

McDougal, W. G. see Tsai, Y. T., WW Jan./Feb. 90, p1-20

Magill, K. E. see Kjertve, Björn, WW Mar./Apr. 90, p153-168

Martin, Paul A. see Dalrymple, Robert A., WW Nov./Dec. 90, p727-741

Mase, Hajir Groupiness Factor and Wave Height Distribution, WW Jan./Feb. 89, p105-121

disc: J. Ian Collins, WW July/Aug. 90, p519-521

cio: WW July/Aug. 90, p521-522

Medina, Josep R. disc. (of Deterministic and Probabilistic Design of Breakwater Armor Layers, by Jentsje W. van der Meer, WW Jan./Feb. 88, p66-80) with William G. McDougal, WW July/Aug. 90, p508-510

Mehta, Ashish J. see Maa, Jerome P. -Y., WW Sept./Oct. 90, p634-650

Miller, Herman C. FRF Spectrum: TMA with Kitaigorodskii's f<sup>4</sup> Scaling, with C. Linwood Vincent, WW Jan./ Feb. 90, p57-78

Myrhaug, Dag see Slaattelid, Olav H., WW Sept./Oct. 90, p614-

Nayak, B. U. see Chandramohan, P., WW July/Aug. 90, p408-474

Noritake, Michibiko Optimum Allocation and Size of Seaports, with Sakuo Kimura, WW Mar./Apr. 90, p287-299

Panchang, Vijay G. Numerical Simulation of Irregular Wave Propa-gation Over Shoal, with Ge Wei, Bryan R. Pearce and Michael J. Briggs, WW May/June 90,

Pearce, Bryan R. see Panchang, Vijay G., WW May/June 90, p324-340

Pilarczyk, K. W.

see Burger, A. M., WW Sept./Oct. 90, p525-544

Raichlen, Fredric see Ramsden, Jerald D., WW Sept./Oct. 90, p592-

Raju, V. S.

Chandramohan, P., WW July/Aug. 90, p408-424 see Sundaravadivelu, R., WW Jan./Feb. 90, p43-56

Ramsden, Jerald D. Forces on Vertical Wall Caused by Incident Bores, with Fredric Raichlen, WW Sept./Oct. 90, p592-613

Ruzecki, E. P. see Kuo, A. Y., WW May/June 90, p341-361

Sakai, Shigeki Breaking Condition of Shoaling Waves on Oppos-ing Current, with Nobuhisa Kobayashi, WW Mar./Apr. 90, p302-306

Scott, D.

Structural Modeling of Dolos Armor Units, with D. Turcke and W. F. Baird, WW Jan./Feb. 90, p120-136

Silvester, Richard see Hsu, John R. C., WW May/June 90, p362-380

North Sea Bottom Steady Boundary Layer Meas-urements, with Dag Myrhaug and Kostas F. Lambrakos, WW Sept./Oct. 90, p614-633

Sollitt, C. K. see Tsai, Y. T., WW Jan./Feb. 90, pl-20

Spasojevic, Miodrag 2-D Bed Evolution in Natural Watercourses—New Simulation Approach, with Forrest M. Holly, Jr., WW July/Aug. 90, p425-443

Subbiah, Kesavan see Isaacson, Michael, WW Nov./Dec. 90, p742-763

Scour Below Pipelines in Waves, with Fredsee, WW May/June 90, p307-323 with Jørgen

Sundaravadivelu, R. Tie-Rod Force Measurements in Cargo Berth, with V. G. Idichandy, S. R. Gandhi and V. S. Raju, WW Jan./Feb. 90, p43-56

Synolakis, Costas Emmanuel Generation of Long Waves in Laboratory, WW Mar./Apr. 90, p252-266

Taylun, M. Aziz Distribution of Large Wave Heights, WW Nov./ Dec. 90, p686-707 High-Wave-Number/Frequency Attenuation of Wind-Wave Spectra, WW May/June 90, p381-198

Nonlinear Effects on Wave Envelope and Phase, with Jen-Men Lo, WW Jan./Feb. 90, p79-100

Tsai, Y. T.

Response of Finite Depth Seabed to Waves and Caisson Motion, with W. G. McDougal and C. K. Sollitt, WW Jan./Feb. 90, p1-20

Turcke, D. see Scott, D., WW Jan./Feb. 90, p120-136

Valloulis, Iraklis A.

Motion Response and Wave Attenuation of Linked
Floating Breakwaters, WW Sept./Oct. 90, p558-

van der Meer, Jentsje W.
Deterministic and Probabilistic Design of Break-water Armor Layers, WW Jan./Feb. 88, p66-80 disc: Per Brunn, WW July/Aug. 90, p502-504 disc: Per Anders Hedar, WW July/Aug. 90, p504-505

disc: Miguel A. LoSada and Raúl Medina, WW July/Aug. 90, p505-507 disc: Josep R. Medina and William G. McDougal, WW July/Aug. 90, p508-

510

clo: WW July/Aug. 90, p510-516

Vincent, C. Linwood see Miller, Herman C., WW Jan./Feb. 90, p57-78

Walton, Todd L., Jr. Simulation of Nonstationary, Non-Gaussian Water Levels on Great Lakes, with Leon E. Borgman, WW Nov./Dec. 90, p664-685

see Panchang, Vijay G., WW May/June 90, p324-

Diffraction of Long Waves by Rectangular Pit, WW July/Aug. 90, p459-469
Wave Radiation by Truncated Elliptical Cylinder, with M. K. Darwiche, WW Jan./Feb. 90, p101-

Wurjanto, Andojo see Kobayashi, Nobuhisa, WW Nov./Dec. 90, p708-726

Yoon, Sang B.

Effects of Opposing Waves on Momentum Jets, with Philip L. -F. Liu, WW Sept./Oct. 90, p545-557